

Performance of mechanical weeding levels on yield and vegetative component of rice under the system of rice intensification (SRI) at Tanjung Karang irrigation scheme, Malaysia

ABSTRACT

Among the practices of System of Rice intensification is the intensive mechanical weeding need at 10 to 12 days intervals up to 40 days after transplanting (DAT) or canopy closure. This practice aerates the soil, adds biomass and increase yield. This study was carried out to evaluate the effect of levels of mechanical weeding using four different locally fabricated rotary weeders on the yield and vegetative components of rice under the System of Rice Intensification at Tanjung Karang Irrigation Scheme of Malaysia. Results indicated that mechanical weeding levels had a significant effect on vegetative paddy height at P (0.05) level with 60.05 cm as the highest average vegetative height obtained at three levels of rotavation (mechanical weeding) using treatment D. The analysis of variance of the yield from the treatments indicates a significant difference in yield with increase in the levels of mechanical weeding with 13.1 tons/Ha being the highest obtained from treatment D (three levels of rotavation) at 30DAT. The lack of machine ground clearance hindered weeding up to canopy closure or 40 DAT.

Keyword: Mechanical rotavation; Weeding levels; Rice; Yield; System of rice intensification (SRI)